PostScript

LETTERS

Hepatitis B and C viral infections among STD clinic patients in India

While many studies from other countries[1 2] document hepatitis B virus (HBV) and hepatitis C virus (HCV) infection rates in STD clinic patients, very few data are available from India. In the present report, we have analysed the rate of HBV and HCV infections in STD patients by using serological and molecular methods of diagnosis.

The study subjects were symptomatic STD patients (n = 143), who attended the STD clinic, Government General Hospital, Chennai, between September 1998 and August 2000, randomly included for a study on STDs after obtaining informed consent. Blood samples were evaluated for hepatitis and HIV markers by ELISA kits; HBsAg, HBeAg/anti-HBe (Biorad laboratories, USA), anti-HCV (Murex Diagnostics, UK), anti-HIV 1 and 2 (Xyton Diagnostics, India). Anti-HIV positivity was confirmed by another EIA kit (Sanofi Pasteur, France). Detection of HBV DNA and HCV RNA was performed by polymerase chain reaction (PCR)[3] and RT-PCR[4] methods.

The serological and molecular marker profile for HBV and HCV is shown in table 1. HBsAg was positive in 37 (25.9%) patients, while HBV DNA was detected in 25 (67.6%) of them. HBV DNA was detected in 23 of 28 HBeAg positives and two of nine anti-HBe positive cases. The overall HBV positivity rate was significantly higher in females than in males (33.7% *v* 15.9%; $p<0.05$). Anti-HCV was positive in six (4.2%) patients and five of them showed HCV-RNA positivity. RT-PCR additionally detected HCV-RNA in two anti-HCV negative patients. The overall HCV prevalence was 5.6%. Anti-HIV positivity was seen in 24 (16.8%) patients. Men had a significantly higher HIV positivity rate compared to women (27% (17/63) *v* 8.8% (7/80); $p<0.05$). HIV co-infection was observed in five (13.5%) of the HBV infected patients and in two (25%) of the HCV positive patients in whom HCV RNA alone was positive.

There was a low prevalence of injection drug use (7.7%), history of blood transfusion (5.6 %), and homosexual contact (2.9%) and these risk factors showed no correlation with HBV and HCV positivity. Having multiple sexual partners was a risk factor significantly associated with HBV and HCV positivity in men. Men who had multiple sexual partners (n = 35) had 14.3% HCV positivity and 17.1% HBsAg positivity, while in those who did not report multiple sexual contact, 3.8% had HBsAg positivity and none had HCV positivity.

The results of the present study suggest that STD clinic patients may be considered as a targeted high risk group for routine screening for HBV and HCV to control the high infection rates. HIV co-infection in HBV/HCV infected patients is a matter of concern to evolve better clinical management strategies. Our data emphasise the need for molecular diagnosis to prevent underdiagnosis of HCV infection in STD/HIV patients. The HBV positivity rate (26%) observed in the present series of STD patients is high compared to previous Indian reports.[5 6] HBV vaccination in STD patients may be a much needed intervention to strengthen STD control programmes in India. Further large studies are required to assess the magnitude of HBV and HCV infections, role of sexual transmission, and associated risk factors in the STD population.

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Table 1 Serological and molecular markers for HBV and HCV in STD clinic patients in relation to sex

	Males (n = 63)	Females (n = 80)	Both (n = 143)
HBV and HCV markers	No positive (%)	No positive (%)	No positive (%)
HBsAg	10 (15.9)	27 (33.7)	37 (25.9)
HBe Ag	7 (11.1)	21 (26.3)	28 (75.7)
Anti-HBe	3 (4.8)	6 (7.5)	9 (24.3)
HBV DNA	6 (9.5)	19 (23.7)	25 (17.5)
Overall HBV positivity	10 (15.9)	27 (33.7)	37 (25.9)
Anti-HCV	3 (4.8)	3 (3.6)	6 (4.2)
HCV RNA	5 (7.9)	2 (2.5)	7 (4.9)
Overall HCV positivity	5 (7.9)	3 (3.7)	8 (5.6)

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Female sex workers and fear of stigmatisation

Female sex workers are often forced to work underground and away from their local communities. Historical records show that female sex workers have been frequently singled out for social control and treated as a distinct section of the community. This social rejection and isolation has s erious repercussions on the health provisions to them and on their willingness to seek medical care.

In some countries, including Iran, presence of prostitution and sexually transmitted infections (STIs) is systematically denied, being considered a taboo by the government and the majority of the society. There is no official record of the prevalence of prostitution in Iran. Sex workers in Iran are suffering from unavailability of medical services and knowledge about STIs. Social stigmatisation stops these resource deprived women from seeking proper medical care and treatment.

In a follow up study in 2002 in Kermanshah, Iran on 100 men with gonorrhoea most of whom had met a female sex worker before the infection, Zargooshi[1] reported an average 84% failure rate of standard therapies. This was much higher than the 12–25% resistance rate in the study by Zirak-Zadah *et al* in 1977 of sex workers of Shahre-Now (a brothel in Tehran before 1979), whose infection and resistance rate were similar to their American counterparts of that era.[2] In those days sex workers had health coverage, something totally ignored these days. Fear of stigmatisation and prosecution, and high rate of self treatment seem to be responsible for the high rate of resistance to standard therapies.

The increasing rate of STIs and HIV/AIDS is alarming! Young girls and boys are among the high risk populations.[3] The ministry of education has taken some steps forward and is now working hard on preventive education against STIs with special focus on HIV/AIDS,[3 4] though there is no definite programme for the out of school children.

According to the ministry of health, injecting drug use (62.78%) and sexual contact (7.27%) are the two main routes of transmission of HIV/AIDS in Iran, and 26.12% of the cases are grouped under ''unspecified route of transmission'' according to the report.[5] Lack of any reliable records of the underground sex industry makes the data shaky.

Though in Iran commercial sex is not so widespread as in many other countries, sex workers should be considered as patients and efforts should be made to provide appropriate health coverage and preventive education on